**Dicroidium** compression floras from southern Victoria Land

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**Dicroidium** is a form genus of pteridosperm foliage found on all of the continents and islands of the Southern Hemisphere, indicating that the plants which bore **Dicroidium** foliage were widely distributed throughout Gondwanaland during the Triassic. **Dicroidium** was first collected in Antarctica from Triassic exposures on Mount Fleming and Mount Shapeless, southern Victoria Land (Gunn and Warren 1962; Plumstead 1962, pp. 1–154). Approximately 15 different species have been identified from the central Transantarctic Mountains, Victoria Land, and East Antarctica (Townrow 1967; Rigby and Schopf 1969, pp. 91–106; Boucher, Taylor, and Taylor 1993, pp. 39–46; Webb and Fielding 1993). Impression and compression specimens are abundant in the fossil record, yet little is known about the spatial and temporal range of species within this genus. To improve understanding of the role of **Dicroidium** in Triassic biostratigraphy and paleoenvironmen-

tal reconstructions, specimens have been collected and identified from several localities and stratigraphic levels in Antarctica. This article describes specimens from two sites in southern Victoria Land.

We collected plant compressions and impressions from Feather Bay and Roscolyn Tor, Allan Hills, during three different field seasons (1989–1990, 1992–1993, and 1993–1994) (76°42′S 159°42′E) (Taylor et al. 1990). At each site, **Dicroidium** species were identified from several levels within the Lashly Formation, which is Middle to Late Triassic in age (Kyle and Schopf 1982, pp. 649–659). The Lashly Formation has been divided into four members (members A–D), each up to 90+ meters (m) thick. At its greatest exposure, however, the Lashly Formation may extend up to 520+ m (Barrett et al. 1971; Barrett 1991, pp. 120–152). Sedimentological evidence within the Lashly Formation of the Allan Hills indicates a fluvial depositional setting, including both braided and meandering low-

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**Figure 1.** **Dicroidium** odontopteroides from level 1, Lashly Formation, Feather Bay (×1.25).

**Figure 2.** Specimens of **Dicroidium** dutoitii from level 2, Lashly Formation, Feather Bay (×1.5).
Upper member C in south Roscolyn Tor is a dark gray shale and Dicroidium foliage is abundant, including \( D. \text{ lancifolium} \) and \( D. \text{ odontopteroides} \).

Changes in floral assemblages and Dicroidium species at these localities during the Late Triassic may reflect several factors, including changes in the fluvial environment due to flooding, successional changes in the region, seasonality and/or climate changes. The preservation of both vegetative and reproductive remains at most levels increases the probability of establishing a relationship between organs of the same plant, thus providing evidence for plant reconstructions. As more localities and specimens are studied, further stratigraphic correlations and data will be available to evaluate Triassic plants and the paleoecosystem dynamics of high-latitude environments during a globally warm period.

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References


